

**Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

Draft

**AIR QUALITY PERMIT
Issued under 401 KAR 52:020**

Permittee Name: KGen Marshall, LLC
Mailing Address: 1330 Post Oak Boulevard - Suite 1500, Huston,
TX, 77056

Source Name: KGen Marshall, LLC
Mailing Address: 6264 Industrial Parkway
Calvert City, KY 42029

Source Location: 6264 Industrial Parkway, Calvert City, KY 42029

Permit Number: V-05-055
Source A. I. #: 39146
Activity #: APE20040003
Review Type: Title V/Acid Rain/ NOx Budget
Source ID #: 21-157-00053

Regional Office: Paducah - Cario
130 Eagle Nest Drive
Paducah, KY 42003-9435
(270) 898-8640

County:

Application Complete Date: August 15, 2005
Issuance Date:
Revision Date:
Expiration Date:

**John S. Lyons, Director
Division for Air Quality**

TABLE OF CONTENTS

| <u>SECTION</u> | | <u>DATE OF ISSUANCE</u> | <u>PAGE</u> |
|----------------|---|-----------------------------|-------------|
| SECTION A | PERMIT AUTHORIZATION | | 3 |
| SECTION B | EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS | | 4 |
| SECTION C | INSIGNIFICANT ACTIVITIES | | 7 |
| SECTION D | SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS | | 8 |
| SECTION E | SOURCE CONTROL EQUIPMENT OPERATING REQUIREMENTS | | 9 |
| SECTION F | MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS | | 10 |
| SECTION G | GENERAL CONDITIONS | | 13 |
| SECTION H | ALTERNATE OPERATING SCENARIOS | | 19 |
| SECTION I | COMPLIANCE SCHEDULE | | 19 |
| SECTION J | ACID RAIN PERMIT | | 20 |
| SECTION K | NO _x BUDGET | | 23 |

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B -EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Units: 01– 08 (CT1 - CT8) Eight Electric Power Generating Turbines

Description:

Eight firing natural gas turbines rated 1192 mmBtu/hr (or 101.92 MW output) each

Secondary Fuel: Low (less than 0.05%) sulfur fuel oil

Emissions Control Device: Water injection while firing diesel oil for nitrogen oxides control

Construction commenced: May 2000

Applicable Regulations:

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, for emissions unit with heat input at peak load equal to or greater than 10 mmBtu/hr for which construction commenced after October 3, 1977, and 40 CFR 60, Subpart A, General Provisions.

401 KAR 51:017, Prevention of significant deterioration of air quality

401 KAR 63:020, Potentially Hazardous Matter or Toxic substances.

401 KAR 52:060, Acid Rain Permits, incorporated by reference Federal Acid Rain provisions codified in 40 CFR parts 72 to 78.

401 KAR 51:160, NO_x Requirements for Large Facilities and Industrial Boilers, incorporating by reference 40 CFR 96.

40 CFR Part 75, Continuous Emission Monitoring (CEM)

40 CFR Part 64, Compliance Assurance Monitoring

1. Operating Limitations:

- a) The Permittee shall limit the operation of each combustion turbine such that the maximum total annual (12-month rolling average) hours shall not exceed 2500 hours per unit. [Self-imposed restriction pursuant to 401 KAR 51:017]
- b) The Permittee shall limit operation of each combustion turbine while firing low sulfur diesel fuel such that the maximum total annual (12-month rolling average) hours is 500 hours or less. [Self-imposed restriction pursuant to 401 KAR 51:017]
- c) The Permittee shall not operate any combustion turbine, while firing diesel fuel, for more than 16 hours in any consecutive 24 hour period.
- d) The Permittee shall not operate any combustion turbine below 60 percent load, except during periods of startup and shutdown.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

2. Emission Limitations:

- a) Pursuant to 401 KAR 51:017, nitrogen oxides emission levels in the exhaust gas shall not exceed an hourly average of 12 ppm by volume at 15 percent oxygen on a dry basis while firing natural gas, or an annual (12 month rolling) average of 9 ppm by volume at 15 percent oxygen on a dry basis while firing fuel oil, except during startup, shutdown, or malfunction. Continuous compliance with this limit shall be demonstrated by a continuous emission monitoring (CEM) system.
- b) Pursuant to 401 KAR 51:017, while firing low sulfur diesel fuel, nitrogen oxides emission levels in the exhaust gas shall not exceed a hourly average of 42 ppm by volume at 15 percent oxygen on a dry basis, except during periods of startup, shutdown, or malfunction. Continuous compliance with this limit shall be demonstrated by a continuous emission monitoring (CEM) system.
- c) Pursuant to 401 KAR 51:017, the fuel sulfur content due to the firing of natural gas shall not exceed 2.0 grains/1000 SCF.
- d) Pursuant to 401 KAR 51:017, the fuel sulfur content due to the firing of low sulfur diesel fuel shall not exceed 0.05% sulfur by weight (500 ppmw).
- e) Pursuant to 401 KAR 51:017, except during periods of startup, shutdown, or malfunction, the carbon monoxide emission level in the exhaust gas shall not exceed 25 ppm by volume at 15 % oxygen, on a dry basis, during any 3-hour average period while firing natural gas. Continuous compliance with this limit shall be demonstrated by a continuous emission monitoring (CEM) system.
- f) Pursuant to 401 KAR 51:017, except during periods of startup, shutdown, or malfunction, the carbon monoxide level in the exhaust gas shall not exceed 20 ppm by volume at 15 % oxygen, on a dry basis, during any 3-hour average period while firing low sulfur diesel fuel oil. Continuous compliance with this limit shall be demonstrated by a continuous emission monitoring (CEM) system.
- g) Pursuant to 401 KAR 51:017, while firing natural gas, particulate emissions shall not exceed 10 pounds per hour, based on any (3) three-hour average.
- h) Pursuant to 401 KAR 51:017, while firing low sulfur diesel fuel, particulate emissions shall not exceed 26 pounds per hour, based on any (3) three-hour average.
- i) Pursuant to 401 KAR 63:020, sourcewide emissions of a single hazardous air pollutant (HAP, formaldehyde) shall not exceed 10 tons during any consecutive 12-month period, or 25 tons of combined HAPs.
- j) See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

3. Testing Requirements:

Pursuant to 40 CFR 60.335(b), in conducting performance tests required by 40 CFR 60.8, the owner or operator shall use as test methods and procedures the test methods in Appendix A of Part 60 or other methods or procedures as specified in 40 CFR 60.335, except as provided for in 40 CFR 60.8(b).

4. Specific Monitoring Requirements:

- a) Pursuant to 401 KAR 52:020, Section 10, 40 CFR 64, and 40 CFR 75, the permittee shall install, calibrate, maintain and operate the nitrogen oxides Continuous Emissions Monitor (CEM). The nitrogen oxides CEM shall be used as the indicator of continuous compliance with the nitrogen oxides emission standard.. Excluding the start up and shut down periods, if any (1) one hour average exceeds the nitrogen oxides emission limitation, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and complete necessary process or CEM repairs or take corrective action as soon as practicable.
- b) The nitrogen oxides CEM shall be used in lieu of the water to fuel monitoring system for reporting excess emissions in accordance with 40 CFR 60.334(c)(1). The calibration of the water to fuel monitoring device required in 40 CFR 60.335(c)(2) will be replaced by the 40 CFR 75 certification tests of the nitrogen oxides CEM.monitor..
- c) Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the quantity of diesel fuel, in gallons, and natural gas, in millions of cubic feet, fired in each combustion turbine on a daily basis.
- d) Pursuant to Regulation 40 CFR 60.334(h), the owner or operator of any stationary turbine shall monitor sulfur content of the fuel being fired in the turbine. The frequency of determination of these values shall be as specified in the following approved custom fuel monitoring schedule:
 - i) The Permittee will sample the natural gas for sulfur content every six months, except when firing pipeline quality natural gas the sulfur content is assumed to be in compliance and testing is not required.
 - ii) The Permittee will sample the diesel fuel in accordance with 40 CFR 75, Appendix D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

- e) Pursuant to 401 KAR 51:017, to meet the periodic monitoring requirement for carbon monoxide the permittee shall use a continuous emission monitor (CEM). Excluding the startup and shut down periods, if any (3) three-hour average carbon monoxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and complete necessary process or CEM repairs or take corrective action as soon as practicable.
- f) The permittee shall install, calibrate, test, and monitor the operation of all continuous emissions monitoring devices in accordance with 40 CFR 60.13 or 40 CFR 75.
- g) The permittee shall monitor the hours of operation and the power output, in megawatts, of each combustion turbine on a daily basis.

5. Specific Record Keeping Requirements:

- a) Pursuant to 401 KAR 59:005, Section 3 and 40 CFR 60.7 (f), the owner or operator of the gas turbines shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by 40 CFR 60, Subpart A recorded in a permanent form suitable for inspection.
- b) Pursuant to 401 KAR 52:020, Section 10, the following records, including the results of each compliance test and all other reports required by this permit, shall be maintained for five (5) years:
 - 1. The permittee shall maintain a log of all sulfur content measurements as required in the approved custom fuel sulfur-monitoring plan (Condition 4(d)above).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

2. The permittee shall maintain a daily log of the quantity of diesel fuel, in gallons, and natural gas, in millions of cubic feet, fired in each combustion turbine, for any consecutive twelve (12) month period.
3. The permittee shall maintain a daily log of all hours of operation for each combustion turbine, for any consecutive twelve (12) month period.
4. The permittee shall maintain a daily log of all power output, in MW, for each combustion turbine, for any consecutive twelve (12) month period.

6. Specific Reporting Requirements:

- a) Pursuant to 40 CFR 60.7 (c), the minimum required data, which follow, shall be maintained and furnished in the format specified by the Division. Owners or operators of facilities required to install continuous monitoring systems shall submit for every calendar quarter a written report of excess emissions (as defined in applicable sections) to the Division. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter and shall include the following information:
 - i. The magnitude of the excess emissions computed in accordance with 40 CFR 60.13 (h), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
 - ii. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the emissions unit, including the nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.
 - iii. The date and time identifying each period during which any continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
 - iv. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

- b) Pursuant to 401 KAR 52:020, Section 10, material incorporated by reference, monitoring requirement for nitrogen oxides, excess emissions are defined as any (1) one-hour period during which the average emissions (arithmetic average) exceed the applicable nitrogen oxides emission standard. These periods of excess emissions shall be reported quarterly. The alternate method for CEMs approved in 40 CFR 75, Appendix E, shall be used for reporting excess emissions of nitrogen oxides. Compliance with 40 CFR 75, Appendix E, shall assure compliance with 40 CFR 60, Subpart GG.
- c) Pursuant to 40 CFR 60.334(j)(1), each report of nitrogen oxides excess emissions shall include the average nitrogen oxides emission level in lieu of water to fuel ratio, average fuel consumption, ambient conditions, and turbine load.
- d) Pursuant to 40 CFR 60.334(j)(2), excess emissions of sulfur dioxide are defined as any daily period (or as otherwise required in an approved custom fuel sulfur monitoring plan) during which the sulfur content of the fuel being fired in the gas turbine(s) exceeds the limitations set forth in Subsection 2, Emission Limitations. These periods of excess emissions shall be reported quarterly.
- e) Pursuant to 401 KAR 52:020, Section 10, material incorporated by reference, monitoring requirement with CEM for carbon monoxide, excess emissions are defined as any (3) three-hour period during which the average emissions (arithmetic average) exceed the applicable carbon monoxide permit limit. These periods of excess emissions shall be reported quarterly.

7. Specific Control Equipment Operating Conditions:

- a) The water injection system shall be operated while burning low sulfur diesel fuel to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.
- b) See Section E for further requirements.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 50:035, Section 5(4). While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

| <u>Description</u> | <u>Generally Applicable Regulation</u> |
|--|--|
| 1. Emergency Diesel Engine Fire Pump (≤500 hours per year operation) | NA |
| 2. Four (4) Low Sulfur Diesel Fuel Storage Tanks (519,000 gallons each) | NA |

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
2. Nitrogen oxides, sulfur dioxide, particulate matter, and carbon monoxide emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to Regulation 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any emissions unit including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within *30 days*. Other deviations from permit requirements shall *be included in the semiannual report required by Section F.6* [Section 1b (V) 3, 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality
Paducah Regional Office
4500 Clarks River Road
Paducah, KY 42003

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601.

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.
11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

SECTION G - GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
 - d. If any additional applicable requirements of the Acid Rain Program become applicable to the source.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].
11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Environmental and Public Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].
15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

SECTION G - GENERAL PROVISIONS (CONTINUED)

16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:
 - a. Applicable requirements that are included and specifically identified in the permit and
 - b. Non-applicable requirements expressly identified in this permit.
17. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

None

SECTION G - GENERAL PROVISIONS (CONTINUED)

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
2. The source shall comply with all requirements and conditions of the Title IV, Acid Rain Permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 - e. This requirement does not relieve the source of other local, state or federal notification requirements.
2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 1515
Lanham-Seabrook, MD 20703-1515.

SECTION G - GENERAL PROVISIONS (CONTINUED)

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
 - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.
4. The permittee shall furnish to the Division, in writing, information that the Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. [401 KAR 50:035, Permits, Section 7(2)(b)3e and 401 KAR 50:035, Permits, Section 7(3)(j)]
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None

SECTION J - ACID RAIN

ACID RAIN PERMIT CONTENTS

- 1) Statement of Basis
- 2) SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.
- 3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.
- 4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the Phase II Application and the Phase II NO_x Compliance Plan.
- 5) Summary of Actions

1) Statement of Basis:

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Environmental and Public Protection Cabinet, Division for Air Quality issues this permit pursuant to Regulations 401 KAR 52:020, Permits, 401 KAR 52:060, Acid Rain Permit, and Federal Regulation 40 CFR Part 76.

SECTION J - ACID RAIN

PERMIT (Conditions)

| |
|--|
| Plant Name: KGen Marshall LLC. |
| Affected Unit: Combustion Turbine Units 01-08, rated 1198 mmBtu/hr each |

2- SO₂ Allowance Allocations and NO_x Requirements for the affected units:

| SO ₂ Allowances | Year | | | | |
|---|------|------|------|------|------|
| | 2005 | 2006 | 2007 | 2008 | 2009 |
| Tables 2, 3 or 4 of 40 CFR Part 73 | 0* | 0* | 0* | 0* | 0* |

| NO _x Requirements | |
|------------------------------|------|
| NO_x Limits | NA** |

* The eight (8) combustion turbines, emission units 01 – 08 currently have no SO₂ allowances allocated by U.S. EPA Acid rain Program.

** The eight (8) combustion turbines, emission units 01 – 08 do not have applicable NO_x limits set by 40 CFR Part 76.

3) Comments, Notes, and Justifications:

Affected units are eight combustion turbines, units 01-08, rated 1192 mmBtu/hr each, firing natural gas or fuel oil. The units are used for base or peak load electric generating, and currently have no SO₂ allowances allocated by U.S. EPA.

4) Permit Application:

The Phase II Application is part of this permit and the source must comply with the standard requirements and special provisions set forth in the Phase II Application.

SECTION J - ACID RAIN

5) Summary of Actions:

Previous Actions:

1. Final Phase II Permit (# A-00-004) was issued on Month July 7, 2000.
2. Phase II Permit (# A-00-004) is hereby null and void.

Present Action:

Draft Title V permit with Acid Rain permit being advertised for public notice.

SECTION K – NO_x BUDGET

1) Statement of Basis

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100, the Kentucky Environmental and Public Protection Cabinet issues this permit pursuant to 401 KAR 52:020 Title V permits, 401 KAR 51:160, NO_x requirements for large utility and industrial boilers, and 40 CFR 97, Subpart C.

2) NO_x Budget Permit Application, Form DEP 7007EE

The NO_x Budget Permit application for these electrical generating units (01-08) was submitted to the Division and received on February 2, 2004. Requirements contained in that application are hereby incorporated into and made part of this NO_x Budget Permit. Pursuant to 401 KAR 52:020, Section 3, the source shall operate in compliance with those requirements.

3) Comments, notes, justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.

Affected units are eight (8) combustion turbines rated 1192 mmBtu/hr each. These units (01-08) use natural gas, and fuel oil as fuel source, and are authorized as base load or peak load electric generating power.

4) Summary of Actions

The NO_x Budget Permit is being issued as part of the renewal Title V permit for this source. Public, affected state, and U.S. EPA review will follow procedures specified in 401 KAR 52:100.